

Application No.: 10/772,752
Amendment dated: July 8, 2011
Reply to Office Action of February 8, 2011
Attorney Docket No.: 22176.28 (ITW-14460)

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims

Claim 1 (currently amended): A multi-layer printing material for forming an image on a substrate, the material comprising

an embossed layer of the multilayer printing material comprising substantially non-overlapping ~~consecutive~~ adjacent panels,
wherein each panel is tinted with one of the primary colors,
wherein each panel diffracts light at a ~~distinct predetermined~~ reflection angle,
wherein ~~a value of each distinct predetermined~~ the reflection angle for each panel
is different ~~[[for]]~~ from the reflection angle for each other panel, [[and]]
wherein at least three panels are tinted with different primary colors,
wherein multiple separate portions of each panel are selectively transferrable onto the substrate to become parts of an image on the substrate.

Claim 2 (canceled)

Claim 3 (currently amended): The material of claim 1, wherein each panel comprises a plurality of embossed pixels, wherein all pixels within the same panel diffract incoming light at the ~~distinct predetermined~~ same angle.

Claim 4 (previously presented): The material of claim 1, further comprising a thermally stable layer, a wear resistant layer or top coat, a reflective layer overlaid upon the embossed layer and a heat activated adhesive layer serving to attach the material to the substrate upon heat activation.

Claim 5 (currently amended): The material of claim 1, wherein ~~each value of a different number is assigned to each of the distinct predetermined reflection angles is encoded by a number, thereby creating a plurality of numbers for subsequent reading by~~ for use in a

Application No.: 10/772,752
Amendment dated: July 8, 2011
Reply to Office Action of February 8, 2011
Attorney Docket No.: 22176.28 (ITW-14460)

reading device sequentially outputting a number for each sequentially detected reflection angle.

Claim 6 (previously presented): The material of claim 1, wherein the primary colors are yellow, magenta, cyan, and black.

Claim 7 (withdrawn): A method of forming a color image having a holographic appearance on a substrate, the image being comprised of image forming pixels, the method comprising: providing a transfer material having an embossable layer comprising a plurality of panels, wherein each individual panel is tinted with one of the primary colors and is processed to diffract incoming light at a predetermined reflection angle α_n , which predetermined angle α_n is different for each panel; and forming the color image on the substrate by selective pixel transferring of the image forming pixels from each individual panel tinted with one of the primary colors onto the substrate.

Claim 8 (withdrawn): The method of claim 7, wherein selective pixel transferring comprises heat activating of each pixel of the image forming pixels and causing each pixel to separate from the transfer material and to adhere to the substrate.

Claim 9 (withdrawn): The method of claim 8, wherein selective pixel transferring comprises heat activating of each pixel of the image forming pixels and causing each pixel to separate from the transfer material and to adhere to the substrate.

Claim 10 (withdrawn): The method of claim 7, further comprising providing a computer controlling selective pixel transferring of the image forming pixels from the transfer material to the substrate to form the holographic image.

Claim 11 (currently amended): A multi-layer printing material for forming an image on a substrate,

wherein any layer of the multi-layer printing material is tinted with one of the yellow-magenta-cyan primary colors,

the multi-layer printing material comprising an embossed layer comprising substantially non-overlapping ~~consecutive~~ adjacent panels,

Application No.: 10/772,752
Amendment dated: July 8, 2011
Reply to Office Action of February 8, 2011
Attorney Docket No.: 22176.28 (ITW-14460)

wherein each panel corresponds to one of the primary colors,
wherein each panel diffracts light at a ~~distinct predetermined~~ reflection angle,
wherein ~~a value of each distinct predetermined~~ the reflection angle for each panel
is different ~~[[for]]~~ from the reflection angle for each individual other panel, [[and]]
wherein at least three panels correspond to different primary colors,
wherein multiple separate portions of each panel are selectively transferrable onto
the substrate to become parts of an image on the substrate.

Claim 12 (withdrawn): A method of forming an image having a holographic appearance on a substrate, the image being comprised of image forming pixels, the method comprising: providing a multi-layer transfer material wherein any layer of the multi-layer material is tinted with one of the primary colors, the material having an embossable layer comprising a plurality of panels, wherein each individual panel corresponds to one of the primary colors and is processed to diffract incoming light at a predetermined reflection angle α_n , which predetermined angle α_n is different for each panel; and forming the image on the substrate by selective pixel transferring of the image forming pixels from each individual panel tinted with one of the primary colors onto the substrate.

Claim 13 (withdrawn): The method of claim 12, wherein selective pixel transferring comprises blending individual pixels.

Claim 14 (withdrawn): The method of claim 12, wherein forming the color image on the substrate by selective pixel transferring comprises forming stand alone pixels on the substrate.

Claim 15 (currently amended): A holographic image formed on a substrate, the holographic image comprising a plurality of holographic pixels, wherein each holographic pixel is tinted in one of the yellow-magenta-cyan primary colors, wherein all pixels tinted in the same primary color diffract light at a distinct predetermined diffraction angle, wherein values of different distinct diffraction angles are different from one another,

Application No.: 10/772.752
Amendment dated: July 8, 2011
Reply to Office Action of February 8, 2011
Attorney Docket No.: 22176.28 (ITW-14460)

wherein each holographic pixel is a separate portion of a corresponding color panel selectively transferred onto the substrate.

Claim 16 (currently amended): The material of claim 11, wherein ~~each value of different~~ number is assigned to each of the distinct predetermined reflection angles is encoded by a number, thereby creating a plurality of numbers for subsequent reading by for use in a reading device sequentially outputting a number for each sequentially detected reflection angle.